University, Regional Plant Introduction Station, Ames, Iowa 50011, United States; Gerald Seiler, USDA, ARS, Northern Crop Science Lab., P.O. Box 5677, University Station, Fargo, North Dakota 58105, United States. Donated by Gerald Seiler, USDA, ARS, Northern Crop Science Lab., P.O. Box 5677, University Station, Fargo, North Dakota 58105, United States. Received 09/16/1994.

PI 592341. Helianthus nuttallii Torrey & A. Gray
Wild. MAX-2338; Ames 22205. Collected 09/14/1994 in Manitoba, Canada.
Latitude 49 deg. 37' 49'' N. Longitude 98 deg. 20' 45'' W. Elevation 317
m. 2.7 km south of St. Claude, Hwy. 240 S. Brown, sandy soil, level area
of roadside ditch, topography - plain (level), moderate soil nutrient
content, no salinity, well drained, tillage not affected by stoniness.
Cropland vegetation. Large, scattered population along both sides of
road in roadside ditch, extending several hundred meters. Uniform
population. Typical population, few taller plants, multiple heads, upper
branching. Past peak flowering, good seed set. No apparent insect
damage, many plants with rust on leaves. Associated wild species:
Equisetum, Aster, Solidago.

The following were collected by Gerald Seiler, USDA, ARS, Northern Crop Science Lab., P.O. Box 5677, University Station, Fargo, North Dakota 58105, United States. Received 09/16/1994.

PI 592342. Helianthus nuttallii ssp. rydbergii (Britton) R. Long

Wild. Ames 22207; NUT-2285. Collected 09/03/1994 in Manitoba, Canada. Latitude 50 deg. 36' 53'' N. Longitude 99 deg. 20' 24'' W. Elevation 471 m. 9.6 km north of Riding Mountain, Hwy. 5 N. Brown, loam soil, level area of roadside ditch, topography - swamp, moderate soil nutrient content, no salinity, imperfect drainage, tillage not affected by stoniness. Located near hay field. Small population in swampy roadside ditch, near trees and hay field. Uniform population, effective population size - 120 plants, population area 100 meters square. Plants tall, 3 m or more, larger alternate leaves above, red stems, more typical H. nuttallii. Peak flowering, older heads look empty, seed set questionable. No apparent insect or disease damage. Associated wild species: Scirpus, Carex.

PI 592343. Helianthus nuttallii ssp. rydbergii (Britton) R. Long

Wild. NUT-2286; Ames 22208. Collected 09/03/1994 in Manitoba, Canada. Latitude 50 deg. 46' 11'' N. Longitude 99 deg. 29' 52'' W. Elevation 427 m. 1.6 km north of McCreary, Hwy. 5 N. Black-brown, sandy-loam soil, level area of roadside ditch, topography - swamp, moderate soil nutrient content, no salinity, imperfect drainage, tillage not affected by stoniness. Located along margin of cultivated field. Dense, localized population in swampy roadside ditch, near stream. Uniform population, effective population size - 100 plants, population area 300 meters square. Plants about 3 m tall, red stems, alternate, serrate leaves, more typical H. nuttallii. Peak flowering, seed set questionable. No apparent insect damage, moderate to severe rust.

PI 592344. Helianthus nuttallii ssp. rydbergii (Britton) R. Long

Wild. NUT-2287; Ames 22209. Collected 09/03/1994 in Manitoba, Canada. Latitude 51 deg. 4' 9'' N. Longitude 99 deg. 56' 23'' W. Elevation 440 m. 14.4 km west of Ochre River, Hwy. 5 W. Brown, sandy-loam soil, level area of roadside ditch, topography - swamp, moderate soil nutrient content, no salinity, imperfect drainage, tillage not affected by stoniness. Located along margin of cultivated field. Small, dense population in swampy area of roadside ditch with standing water, along edge of wheat field and near cultivated field. Low population